DOCUMENT RESUME

ED 393 898 TM 024 870

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TITLE Research Methods, Ideology, and Values.
PUB DATE 9 Nov 95
NOTE 16p.
PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Criteria; *Educational Research; Evaluation Methods; *Ideology; *Individual Differences; *Research Methodology; Research Utilization; *Theory Practice Relationship; *Values

ABSTRACT

There have been ongoing debates among educational researchers over the appropriateness of various research methods. This paper begins with the contention that these differences in methodological orientation are in large part reflections of the broader ideological and value convictions of the researchers themselves. A critical point to be made, however, is that methodological and ideological differences need not lead to unresolvable relativism in the search for meaning in research of all kinds. There are meaningful criteria for assessing a wide array of research conducted under divergent methodologies. In fact, common values and social purposes would seem to underlie most, if not all, educational research in the United States. Ultimately, our first concern should be for the relevance of research findings. From this perspective, debate over preferred Methodologies need not be "resolved," since it is out of this dialectical, if untidy, process that values, methods, and application can mix to provide a closer connection between research and practice. (Contains 53 references.) (Author)

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RESEARCH METHODS, IDEOLOGY, AND VALUES

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November 9, 1995

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RESEARCH METHODS, IDEOLOGY, AND VALUES

We still do not know where the urge for truth comes from; for as yet we have heard only of the obligation imposed by society that it should exist: to be truthful means using the customary metaphors - in moral terms: the obligation to lie according to a fixed convention, to lie herd-like in a style obligatory for all....

Friedrich Nietzsche

Lady, I do not make up things. That is lies. Lies are not true. But the truth could be made up if you know how. And that's the truth.

Lily Tomlin

Abstract

There have been ongoing debates among educational researchers over the appropriateness of various research methods. This paper begins with the contention that these differences in methodological orientation are in large part reflections of the broader ideological and value convictions of the researchers themselves. A critical point to be made, however, is that methodological and ideological differences need not lead to unresolvable relativism in the search for meaning in research of all kinds. There are meaningful criteria for assessing a wide array of research conducted under divergent methodologies. In fact, common values and social purposes would seem to underlie most, if not all, educational research in the United States. Ultimately, our first concern should be for the relevance of research findings. From this perspective, debate over preferred methodologies need not be "resolved", since it is out of this dialectical, if untidy, process that values, methods, and application can mix to provide a closer connection between research and practice.

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It is not a new insight to observe that quantitatively-oriented and qualitatively-oriented researchers have different focuses in defining, framing, and addressing research problems. These "paradigmatic"[1] differences have led some methodologists to conclude that there may be a fundamental incompatibility of the criteria used by different research traditions to justify and evaluate research (Kuhn, 1962; Phillips, 1987; Winch, 1967). Others have examined these same issues and can find little empirical or logical basis to support such a conclusion (Howe, 1988; Howe & Eisenhart, 1990; Garrison, 1986; Smith and Heshusius, 1986; Gage, 1989).

The rhetoric characterizing this debate highlights the fact that although adherents of both viewpoints do often use different language, operate from differing assumptions, emphasize different perspectives on the phenomena under study, and employ different methods for collecting and processing information, they do generally aim to address the same or similar issues (Firestone, 1987). Differences in method and vocabulary do not overshadow such common ground as the kinds of problems addressed, constructs of interest, the application of findings to practice and policy, and the fundamental values of beneficence, respect, justice, accuracy, and applicability (AERA, 1992; Miller & Fredericks, 1991).

Sometimes these common interests and concerns are overshadowed by the apparent bitterness of the disagreement. It certainly makes no sense to argue that either quantitative or qualitative approaches to research are infallible or without limitations, and little would be gained by simply abandoning one set of methods for another. Why then, in spite of appeals to comity and methodological ecumenism, does there continue to be such fierce devotion to some methodological positions and enmity toward others? Can and should these differences be resolved?

Foundations of 'Methodolotry"[2]

Clearly, much of the debate over methodological soundness or superiority is, in fact, rooted in ideological and rhetorical positions (Miller & Fredericks, 1991; Firestone, 1987). Research traditions provide methods or patterns for collecting and interpreting information that are logically consistent within the boundaries of a system of thought rationally derived from experience and reflection. Differences in the range of principles, attitudes, and beliefs that shape opinions of what constitute appropriate methodological moorings sustain the ongoing debates between adherents of traditionally quantitative approaches to research and adherents of traditionally qualitative approaches.

From the contemporary vantage point these disagreements seem quite modern, or perhaps more precisely, post-modern; a product of post-World War II intellectual ferment and disaffection with scientific reductionism (e.g. - Kuhn, 1962; Winch, 1967; and

Wittgenstein, 1968). However, from another perspective, the kinds of differences in the way researchers collect and process their information, in what they think is important about the world, lie deeply embedded in intellectual frameworks of very long pedigree.[3]

For example, Kimball's (1989) analysis of Western intellectual traditions suggests that such debates may reasonably be seen as a continuation of the ancient struggle between the advocates of grammar and rhetoric (qualitative methods) and the advocates of mathematics and logic (quantitative methods) that can be traced to the Greeks of the fifth century B.C.E. From another perspective, Bordo (1986) has examined the profound impact of Descartes on Western thought as a basis of the historical and current intellectual dichotomy between those who emphasize connectedness (qualitative phenomenology) and those who emphasize detachment (quantitative objectivity) as ways of knowing.

From such an historical perspective, the qualitative renaissance in educational research represents a resurgence of the rhetoricians' position as a counter-thesis to the twentieth century's dominant positivist or quasi-positivist[4] position. It is in the interest of all researchers to revitalize the discourses and disputes of the ancient rhetoricians and mathematicians. A more constructive approach to methodological differences than gainsaying the positions of those who operate from different assumptions seems to lie in considering these disputes as part of an ongoing intellectual dialectic that has shaped modern Western thought and forms the basis of all our attempts to systematically investigate and understand the world of experience.

Bases for Evaluating Research

Given this dialectical interpretation, methodological differences seem not to be implacable, but rather sides of the same coin, even complementary. Howe (1988) Laudan (1977), Miller and Fredericks (1991), Howe and Eisenhart (1990) and Tesch (1990) have amply illuminated the lack of any logical or technical basis from which to judge the superiority of one set of methods over another, or for rejection or preference for any given study solely on the basis of conformity to methodological preferences. Claims to the technical superiority of one methodological stance over all others are simply not logically tenable. If there is a general priority, it must be that research methods serve human inquiry and not the reverse.

Does this spirit of detente mean "anything goes" - that is, it's all relative so let's just agree to disagree? I think not. Relativism has a kind of sickening circularity that does not seem to support some of the key values underlying research. Moreover, it seems quite clear that some research is better than others. Further, relying solely on some form of consensus leaves the

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quality of research to the mercy of group opinion, a practice that has come up short many times, if my reading of history is accurate.

Let's consider the first set of these considerations, that relativism is not the only alternative to methodological struggle and that there are bases for judging the quality of research, regardless of methodological framework. Both experience and reason, as elaborated by researchers and theorists from as disparate perspectives as Goodman (1978), Howe (1988), Eisner (1983; 1988), and Phillips (1987) reasonably lead us to ultimately reject the contention that because there are no methodological absolutes we must accept all conclusions or explanations as equally viable.

What are appropriate and meaningful criteria from which we can make decisions about the quality and value of research? It is helpful to begin from the pragmatist position that the first purpose of research is problem solving (Laudan, 1977). From this perspective, it is rational to accept research and explanation that effectively solve problems of practice or theory, and irrational to do otherwise. Theoretical progress can be judged by the comprehensiveness of explanations and new predictions the research leads to; practical, or empirical, progress can be judged in terms of the empirical support found for phenomena, events, or relationships predicted by the research (Lakatos & Musgrave, 1972). This rationality is predicated on the effectiveness of the research in answering fundamental questions and accounting for observed phenomena. Thus, while prevailing doctrines, previous theories, and traditions (i.e. - "paradigms") shape an overall framework for a theory of rationality, individual research programs are judged specifically by their demonstrable, pragmatic success in addressing issues of importance to the research community, which includes researchers, practitioners, and theorists.

More specific criteria even more concretely linked to specific studies or research activities have been suggested by Howe (1988), Eisner (1983), Howe and Eisenhart (1990), and Miller and Fredericks (1991), among others. The first of these criteria revolves around the quality of the questions asked that form the basis of investigation. A centerpiece of good research is indisputably the asking of powerful and penetrating questions. Jackson (1990) has pointed out that pioneering works in sociology, psychology, and education have had sometimes serious flaws in terms of research methods and data analysis. Jackson thinks it is the quality of writing that made them important and influential; but a common thread is the quality and importance of the questions they asked and the quality of the thinking that preceded their search for answers.

A necessary corollary to asserting the primacy of good questions for quality research is that the particular methods used to seek answers to these questions must be determined on the

basis of how best to obtain information to provide meaningful answers. As Kaplan (1964), Maslow (1966), Shulman (1988), and Howe and Eisenhart (1990) have explained, research methods must be driven by the nature of the questions they are called upon to answer. Research methods are properly judged more by the degree to which they address the central purposes and contextual circumstances of the research being undertaken, and not by the degree to which they match the conventions or practices of some methodological orthodoxy (Howe & Eisenhart, 1990; Garrison, 1986).

Following the pragmatists' lead, then, the relative success of any given research effort is the degree to which initial questions are appropriately and thoroughly answered. There may be disagreements over what is an appropriate and thorough answer, but the best answers coherently account for all available observations, while lesser answers do not. This entails more than logical consistency or "fit" with observation, however. As Howe (1988) has noted, few theories have ever been abandoned because they were internally inconsistent, or because the language used to frame them could not be shaped to correspond with observation. A theory can be consistent but false, and multiple internally consistent theories can be developed to explain observed phenomena. Theories fail because as more is learned they become incapable of sustaining themselves as comprehensive, coherent, useful, and meaningful explanations of the phenomena they purport to address.

A final observation on judging the merits of research qua research revolves around a fundamental need for accountability. Thus, rigor and quality in research are framed in large measure by the degree to which researchers make processes of data collection, analysis, and interpretation as open as possible to public review and scrutiny (Constas, 1992; Garrison, 1986; Fish, 1980; Howe & Eisenhart, 1990; Krathwohl, 1985; Phillips, 1987). While wide variations in method and data interpretation are unavoidable and perhaps even desirable, researchers are accountable to the audiences who will refer to their work for answers, insight, or understanding (Campbell, 1991; Eisner, 1983; Howe, 1988; and Miller & Fredericks, 1991).

This seems to bring us to an apparent dilemma posed by constructivist theories of knowledge. Resort to a community of "organized skepticism" has long formed a cornerstone of scientific research, most clearly in the tradition of Popperian 'conjectures and refutations' (Popper, 1964). Constructivists (Guba, 1990; Phillips, 1995) generally hold that intersubjective agreement forms a basis for communal judgments with regard to what contributes meaningfully to knowledge and what does not. This process assists us in making meaning of the findings of individual research projects and of broader research programs. These meanings are never made in isolation, but mediated through the social and intellectual traditions that form the basis for interpretation of experience and ultimately, data in whatever

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form they take (Eisner, 1990; Jacob, 1988; Phillips, 1995; Shapere, 1983; & MacIntyre, 1980).

While this seems eminently reasonable, does resort to a universal critical community mean that research "truth" is entirely a matter of persuasion and group agreement? Eisner (1983; 1990) has argued that the only difference between good reasons or poor ones for accepting an explanation of some phenomenon is consensus. In his words, "That might be all we can ever have, but we ought to recognize it for what it is" (1990, p. 9). However, Eisner's conclusion omits the possibility that explanations and reasons for them might be tested in ways other than consensus. Consensus may be necessary but does not seem to be sufficient to warrant a claim to knowledge or an explanation of observed phenomena.

As a simple example, several influential qualitative methodologists have repeatedly asserted that the Uncertainty Principle articulated earlier in this century by physicist Werner Heisenberg illustrates the universality of researcher effects on research participants and even environments (e.g. - Goetz & LeCompte, 1984; Lincoln & Guba, 1985; Patton, 1980). However, as McKerrow and McKerrow (1991) have accurately pointed out, this perspective is at best a distortion of Heisenberg's observation and at worst a gross misunderstanding of the principle. Though many researchers in education seem to believe that the Heisenberg principle refers to the act of observing as somehow changing what is observed, this is not what Heisenberg said. History is replete with examples of widely believed yet ultimately inaccurate ideas or of unscrupulous authorities working to "rewrite" history to their advantage. But neither broad agreement nor authoritarian propaganda can make fact of inaccuracy. The tenet that belief and accuracy are synonymous raises some troubling considerations, indeed.

The discussion of group consensus brings into sharp relief the relationship between knowledge and belief. These constructs are products of interpretation, and interpretation is firmly grounded in the values that undergird all human inquiry. Countless historical examples champion the necessity of the unfettered activity of a free and heterogeneous critical community. Consensus is an essential element of the dynamic of the dialectic of the critical community, however, consensus can never be accepted as the final settlement of an issue.

Theoretical orientations, research approaches, and interpretation of data are not and have never been merely technical decisions, but are value-based decisions, the quality of which are rooted in attention to social needs, intellectual traditions, and the ongoing conversation among those engaged in the work of the critical community (Garrison, 1986). Even a cursory review of practice and theory in education reveals the core values common to all (or virtually all) research and decision making in education:

First, there is a focus on individual growth and needs. This has taken shape through the methodological debate as recognition that people are purposive in their actions and engage in constant attempts to make meaning of their experiences and behave meaningfully in response to their experiences. Corollary to this is further recognition that there are multiple factors and combinations of factors that influence human behavior and interpretation in and of the world and these complex interactions call for research efforts equal to the task (Salomon, 1991; Soltis, 1990b).[5]

Second, there are professional commitments to beneficence, respect, and justice with regard to those at the center of any study (AERA, 1992; Soltis, 1990a). Differing paradigms, ideologies, or methodological biases aside[6], these are fundamental values that assert the worth of each human life, its preservation, full development, and equality before the law that underscore the commitment to improving educational policy and practice. As Gage (1989) suggested, in the long run researchers will find that the "moral and rational foundations" of competing research paradigms are "virtually identical, dedicated to the same ideals of social justice and democracy and the goals of an education that would serve those ideals" (p. 8).

Third, there is the long-standing commitment to be as faithful as possible to principles of accuracy. This includes attention to general notions of reliability and validity; to thorough and systematic information gathering; to thorough and clear explanation of processes of data collection, analysis, and the conclusions drawn from that analysis, why and how those conclusions were reached, and what these conclusions mean in the world of experience.

Fourth, there is a commitment to educational research as an endeavor that can provide much needed insight into policy and practice in applied settings. Educational researchers find themselves in a field that is both complex and in urgent need of improvement. The commitment of the researcher to his or her art and science must be translated into research that addresses difficult and profound issues of policy, teaching, learning, finance, and social expectations.

Conclusion

Howe (1988), Garrison (1986), Smith and Heshusius (1986) and others have argued for an end to the "paradigm wars" on philosophical grounds. They have also illustrated reasons to be concerned if methodological dispute "prompts unreflectiveness and stifles progress" (Howe, 1988, p. 14), or if allowed to consume valuable time, energy, and other resources, contributes to neglect of concerns related to the "practical, everyday world of families, work, education, and government" (Gage, 1989, p. 8). Even researchers and theorists who have despaired of

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generalizability (e.g. Cziko, 1989; Cronbach, 1975) have called for research that can support improvements in education policy and practice. The focus of research need not be on universal generalizability, but a more pragmatic concern with the usefulness and applicability of research findings (Donmoyer, 1990).

Research priorities in education must reflect broader social, political, and personal priorities. Students, teachers, administrators, parents, and all others with a stake in education at all levels are looking for answers and assistance. They frankly do not care much about paradigms, but will welcome the effort, talent, and time of the research community in addressing the complex issues and problems they face on a daily basis. Failure to embrace this role in providing ideas and answers to important questions risks increasing marginalization of researchers in realm of educational practice. Much ink has been spilled bemoaning the disconnection between research and practice (Beyer & Trice, 1982; Keller, 1985; Lawler, et al, 1985). Acknowledging the primacy of our fundamental shared values over our methodological preferences will enhance, not hinder the research community as a partner in educational practice.

The differences in perspectives and emphases of qualitative and quantitative approaches to research do not have to present roadblocks, but underscore opportunities for using multiple methods of complementary strengths (Creswell, 1994; Firestone, 1987; Howe, 1988; Phillips, 1987; and Salomon, 1991). Multiple methods help us address different perspectives on issues, and can provide different kinds of knowledge in appropriate and useful ways that need not violate prevailing epistemological values. Even such quantitative luminaries as Cronbach (1975) and Campbell (1978) decades ago encouraged researchers to forge beyond the confines of positivism in its traditional sense.

The dialectical interplay of methodological preferences and perspectives that goes on is a dynamic and beneficial characteristic of the current research landscape. The competition of ideas, theories, and lines of research are critical to the vitality of ongoing inquiry. Campbell (1991), for example, advocated the importance of maintaining "disputation about relative validity" when considering the merits of varying approaches to and philosophies of research (p. 587). On a grander scale, Thomas (1992), in a discussion of recent advances in medical science, strongly advocated the need for the ongoing free flow of information and even competition among the members of the research community. He did not advocate such competition in the sense that groups or individuals must somehow win or lose, but rather emphasized the synergistic quality inherent in the collaborative competition of "playing with delight against all odds in a huge endless game.... For science is only at its beginning, and almost everything important lies still ahead to be learned about and comprehended" (p. 182). How true for education, as well!

Endnotes

1. the very term 'paradigm' implies a much more profound difference in mental frameworks than the differences between most researchers in education. A genuinely different paradigm from mine is evident in the Aztec belief that human sacrifice was necessary to maintain the rhythms of the sun's rise and set. In this example, I can cognitively understand the statement I have just typed, but am apparently incapable of conceiving of the world in such a way. That seems to be a more clear example of incommensurability, not mere disagreement on methods or what data are more valuable in answering important questions. The decision to drive a Ford instead of a Chevrolet is not a paradigmatic decision, but it is a choice based in values and preferred criteria. Furthermore, although incommensurability has been suggested as a fundamental barrier between denizens of different paradigms, even Kuhn (1962), to whom much of the incommensurability conversation is traced, has acknowledged that it is not necessarily the case that a person grounded in one 'paradigm' cannot operate within another (Campbell, 1991).

2. Methodolotry is a term used to suggest the powerful devotion to certain methodological positions held by some researchers. When method is imperative above all other research considerations something would seem to be operating beyond logical selection of the best strategies for answering the important questions at hand.

3. Bordo draws upon the work of such writers as Gilligan (1982), Ruddick (1984), and Chodorow (1978) in suggesting that there is a "natural foundation for knowledge, not in detachment and distance, but in closeness, connectedness, and empathy. They (Gilligan, Ruddick, and Chodorow) find the failure of connection (rather than the blurring of boundaries) as the principle cause of breakdown in understanding" (p. 455). Similarly, Kimball thus describes the modern heirs of the western rhetorical tradition, to whom he refers as hermeneuticists, "this entire movement constitutes a challenge to scientific understanding, normally conceived, and is closely linked to the desire to identify norms and values of human endeavor. While conceding the tremendous advances that the sciences have made in understanding natural phenomena, the new hermeneutics challenges the claims of scientific knowledge to control of a neutral, objective method insofar as it applies to the study of human activities and endeavors" (pp. 604-605). Kimball further notes that "this hermeneutic movement wishes to substitute interpretive method, however tentative and uncertain, for the scientific method in the analysis of social and human endeavor.... [and]... questions the relationship between theorizing and the social and political reality that theorists claim to describe, understand, or predict" (p. 605).

4. As Phillips (1987) has illustrated, even the meaning of the term 'positivism' as it seems to be used by different

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researchers varies widely. In addition, it is not clear that very many researchers in education today really consider themselves logical positivists, but hold more or less behaviorist positions, perhaps.

5. Salomon (1991) called for an end to paradigmatic conflict "because it diverts attention from another basic issue that transcends the quantitative-qualitative distinction. The issue stems from the realization, not a particularly new one, that classrooms (schools, families, therapies, cultures) are complex, often nested conglomerates of interdependent variables, events, perceptions, attitudes, expectations, and behaviors, and thus their study cannot be approached in the same way that the study of single events and single variables can" (p. 11).

6. Avoidance of "iatrogenic" conditions. If there is a clear ethical dimension to what we do as researchers, it must begin, as Soltis (1990) suggested, with that basic pledge of physicians: first, do no harm. This seems particularly important to those researchers who insist on an interventionist course. Those we seek to understand have their own cultures, understandings, and philosophies for living that we do not fully comprehend or we wouldn't be studying them in the first place. Researchers presume greatly who want to use their research to liberate, develop penetrative consciousness, or in some other way open the lives and minds of those they seek to better understand. There is a presumption of superiority in knowledge and understanding, a kind of benevolent and activist paternalism that aims to lift the veil of ignorance from the eyes of others. Researchers go into the field to learn from the people they want to understand, not to civilize, convert, transform, indoctrinate, or otherwise force them to be free (with apologies to Rousseau).

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